

Appendix table 5-1.  
**Number and percent of related children under 18 in a household who are below the poverty level,  
 by race/ethnicity: 1970–96**

Year	Number below poverty level (in thousands)				Percent below poverty level			
	All	White	Black	Hispanic	All	White	Black	Hispanic
1970 .....	10,235	6,138	3,992	NA	14.9	10.5	41.5	NA
1975 .....	10,882	6,748	3,884	1,619	16.8	12.5	41.4	33.1
1980 .....	11,114	6,817	3,906	1,718	17.0	13.4	42.1	30.0
1985 .....	12,483	7,838	4,057	2,512	20.1	15.6	43.1	39.6
1990 .....	12,715	7,696	4,412	2,750	19.9	15.1	44.2	37.7
1994 .....	14,610	8,826	4,787	3,956	21.2	16.3	43.3	41.1
1995 .....	13,999	8,474	4,644	3,938	20.2	15.5	41.5	39.3
1996 .....	13,764	8,488	4,411	4,090	19.8	15.5	39.5	39.9

NA = Not available

SOURCE: National Center for Education Statistics (NCES). 1999. *Digest of Education Statistics, 1998*. NCES 1999-036. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figure 5-1 in Volume 1.

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Appendix table 5-2.

**Percentage of 15-to 24-year-olds (grades 10–12) who dropped out of school: 1976–97**

Year	Total	Race/ethnicity			Family income <sup>a</sup>		
		White	Black	Hispanic	Low	Middle	High
1976 .....	5.9	5.6	7.4	7.3	15.4	6.8	2.1
1980 .....	6.1	5.2	8.2	11.7	15.8	6.4	2.5
1986 .....	4.7	3.7	5.4	11.9	10.9	5.1	1.6
1990 .....	4.0	3.3	5.0	7.9	9.5	4.3	1.1
1994 .....	5.3	4.2	6.6	10.0	13.0	5.2	2.1
1995 .....	5.7	4.5	6.4	12.4	13.3	5.7	2.0
1996 .....	5.0	4.1	6.7	9.0	11.1	5.1	2.1
1997 .....	4.6	3.6	5.0	9.5	12.3	4.1	1.8

<sup>a</sup>Low income is the bottom 20 percent of all family incomes; high income is the top 20 percent of all family incomes; and middle income is the 60 percent in between.

SOURCE: National Center for Education Statistics (NCES), 1999. *The Condition of Education, 1999*. NCES 1999-022; 1999. *Dropout Rates in the United States, 1997*. NCES 1999-082. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figure 5-2 in Volume 1.

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Appendix table 5-3.

**Estimates of resident population, for selected age groups: 1970-97**  
(thousands)

Year	Total all ages	3 and 4 years	5 and 6 years	7 to 13 years	14 to 17 years	18 and 19 years
1970 .....	203,984	6,962	7,703	28,969	15,911	7,410
1975 .....	215,465	6,912	7,014	26,904	17,125	8,418
1980 .....	227,225	6,366	6,291	24,800	16,143	8,718
1985 .....	237,924	7,134	6,916	22,976	14,888	7,637
1990 .....	249,440	7,355	7,238	24,754	13,319	7,700
1995 .....	262,761	8,006	7,886	26,256	14,770	7,122
1996 .....	265,179	7,905	8,063	26,487	15,149	7,320
1997 .....	267,636	7,785	8,065	26,883	15,429	7,468

SOURCE: National Center for Education Statistics (NCES). 1999. *Digest of Education Statistics, 1998*. NCES 1999-036. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figure 5-2 in Volume 1.

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Appendix table 5-4.

**Family characteristics of 6-to 12-year-olds and 15-to 18-year olds: 1972-97**

Selected family characteristic	1972	1977	1982	1987	1992	1997
<b>6-to 12-year-olds</b>						
Mother's education level						
Less than high school diploma .....	34.3	29.5	23.6	20.4	18.0	15.8
High school diploma or GED .....	47.6	47.4	48.0	45.9	38.8	34.8
Some college .....	10.8	13.4	16.5	18.9	26.1	28.8
Bachelor's degree or higher .....	7.2	9.8	12.0	14.8	17.2	20.5
Percentage of young adults whose mothers were employed .....	38.5	45.5	52.1	58.1	61.2	66.4
Percentage of young adults whose fathers were employed .....	93.1	91.0	88.9	90.3	89.1	91.2
Family type						
Two-parent household .....	86.8	81.2	77.1	74.9	72.8	71.4
Father as head of household .....	1.0	1.2	1.8	2.4	3.0	4.2
Mother as head of household .....	12.3	17.6	21.1	22.7	24.1	24.4
Number of other children in household						
0 to 1 .....	28.8	46.4	50.1	52.3	53.5	54.5
2 to 3 .....	46.7	40.8	41.0	40.8	39.8	39.5
4 or more .....	24.4	12.8	8.9	7.0	6.7	6.1
<b>15-to 18-year-olds</b>						
Mother's education level						
Less than high school diploma .....	38.4	32.5	28.1	22.6	18.7	17.0
High school diploma or GED .....	44.5	46.5	47.0	46.6	40.2	37.1
Some college .....	10.0	11.9	14.4	17.8	25.3	26.9
Bachelor's degree or higher .....	7.1	9.1	10.6	12.9	15.7	19.1
Percentage of young adults whose mothers were employed .....	48.6	53.0	59.0	65.3	69.4	73.4
Percentage of young adults whose fathers were employed .....	91.8	88.6	86.7	88.7	88.2	89.3
Family type						
Two-parent household .....	84.3	80.1	75.7	73.6	72.5	71.2
Father as head of household .....	2.0	2.6	2.9	3.6	3.9	5.0
Mother as head of household .....	13.7	17.3	21.4	22.8	23.6	23.8
Number of other children in household						
0 to 1 .....	39.8	45.6	50.9	59.8	61.9	62.6
2 to 3 .....	39.4	38.6	39.1	34.1	32.1	31.9
4 or more .....	20.8	15.9	10.0	6.1	6.1	5.5

SOURCE: National Center for Education Statistics (NCES). 1999. *The Condition of Education, 1999*. NCES 1999-022. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

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Appendix table 5-5.  
**Charter schools in operation, by state: 1992-98**

	Number of charter schools starting in the year						Total schools closed as of Sept. 1998 <sup>a</sup>	New schools as of Sept. 1998	Total schools operating Sept. 1998
	1992/93	93/94	94/95	95/96	96/97	97/98			
<b>Total</b> .....	2	34	65	154	178	284	31	331	1,022
Minnesota .....	2	5	7	3	3	8	2	12	38
California .....		28	37	30	21	19	6	19	148
Colorado .....		1	13	10	8	19	1	10	60
Michigan .....			2	41	33	36	3	24	133
New Mexico .....			4	0	1	0	0	0	5
Wisconsin .....			2	3	6	7	0	12	30
Arizona .....				47	58	45	14	23	159
Georgia .....				3	9	9	1	7	27
Hawaii .....				2	0	0	0	0	2
Massachusetts .....				15	7	3	1	10	34
Alaska .....					2	13	0	2	17
Delaware .....					2	1	0	1	4
District of Columbia .....					2	1	1	16	18
Florida .....					5	28	1	43	75
Illinois .....					1	7	0	6	14
Louisiana .....					3	3	0	4	10
Texas .....					17	21	0	33	71
Connecticut .....						12	0	4	16
Kansas .....						1	0	14	15
New Jersey .....						13	0	20	33
North Carolina .....						34	1	26	59
Pennsylvania .....						6	0	25	31
Rhode Island .....						1	0	1	2
South Carolina .....						2	0	3	5
Mississippi .....								1	1
Nevada .....								1	1
Ohio .....								14	14

<sup>a</sup>The column "Total schools closed as of Sept. 1998" reflects the cumulative number of charter schools closed since 1992.

SOURCE: California State University (CSU). 1998. *Charter Schools: National Concept, California Experience*. Proceedings of a roundtable discussion sponsored by the California Education Policy Seminar and the California State University Institute for Education Reform. Sacramento, CA. October 1.

See figure 5-3 in Volume 1.

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Appendix table 5-6.

**Percentage and standard error of 9-year-old students at the indicated level of NAEP science achievement, by gender, race/ethnicity, and region: 1977–96**

Student gender, race/ ethnicity, and region	1977	1982	1986	1990	1992	1994	1996	*	‡	L	Q
<b>Level 200</b>											
Total .....	68.0 (1.1)	70.7 (1.9)	72.0 (1.1)	76.4 (0.9)	78.0 (1.2)	77.4 (1.0)	76.1 (1.2)	+		+	
Male .....	69.5 (1.2)	69.7 (2.0)	74.1 (1.4)	76.3 (1.2)	80.4 (1.4)	77.6 (0.9)	76.8 (1.8)	+		+	
Female .....	66.5 (1.1)	71.8 (2.2)	70.0 (1.3)	76.4 (1.1)	75.7 (1.2)	77.2 (1.4)	75.5 (1.0)	+		+	
White .....	76.8 (0.7)	78.4 (2.0)	78.9 (1.0)	84.4 (0.7)	85.5 (0.9)	85.6 (1.0)	83.8 (1.2)	+		+	
Black .....	27.2 (1.5)	38.9 (2.7)	46.2 (2.3)	46.4 (3.1)	51.3 (3.5)	51.6 (2.3)	52.2 (3.4)	+		+	
Hispanic .....	42.0 (3.1)	40.2 (6.1)	50.1 (3.7)	56.3 (3.7)	55.5 (4.3)	49.9 (3.1)	57.8 (3.1)	+		+	
Other .....	62.0 (6.9)	NA	67.4 (4.1)	76.3 (7.0)	73.2 (3.7)	65.3 (5.6)	70.1 (4.9)				
Northeast ..	72.6 (1.6)	71.5 (3.5)	75.6 (2.5)	78.2 (2.3)	80.6 (2.2)	80.0 (2.7)	79.1 (1.8)	+		+	
Southeast ..	55.0 (2.4)	63.0 (3.6)	67.3 (3.0)	68.4 (2.4)	71.4 (2.4)	74.5 (2.7)	71.6 (3.1)	+		+	
Central .....	72.5 (2.1)	75.4 (3.7)	75.2 (2.1)	81.9 (1.3)	83.7 (1.4)	81.9 (2.2)	79.1 (2.2)			+	
West .....	68.5 (2.3)	71.4 (3.8)	69.9 (3.0)	76.8 (2.1)	75.9 (2.7)	73.6 (2.1)	74.9 (1.6)				
<b>Level 250</b>											
Total .....	25.7 (0.7)	24.3 (1.8)	27.5 (1.4)	31.1 (0.8)	32.8 (1.0)	33.7 (1.2)	32.2 (1.3)	+		+	
Male .....	27.4 (0.9)	25.6 (2.6)	29.9 (2.0)	33.1 (1.1)	37.2 (1.7)	35.3 (1.4)	33.9 (1.9)	+		+	
Female .....	24.0 (0.9)	23.0 (2.0)	25.1 (1.4)	29.1 (1.0)	28.6 (1.1)	32.2 (1.5)	30.7 (1.9)	+		+	
White .....	30.8 (0.7)	29.4 (2.1)	32.7 (1.5)	37.5 (1.1)	39.4 (1.1)	40.8 (1.5)	39.6 (1.5)	+		+	
Black .....	3.5 (0.6)	3.9 (1.3)	8.3 (1.5)	8.5 (1.1)	9.2 (1.4)	11.1 (1.4)	10.6 (2.0)	+		+	
Hispanic .....	8.8 (1.7)	4.2 (2.7)	10.7 (2.4)	11.6 (2.1)	11.7 (1.8)	10.8 (2.5)	13.1 (3.1)				
Other .....	20.5 (4.9)	NA	27.1 (5.8)	30.1 (6.0)	30.4 (4.7)	22.1 (4.3)	25.8 (4.9)				
Northeast ..	28.9 (1.1)	25.8 (3.1)	30.5 (2.9)	33.4 (2.9)	35.9 (2.7)	36.8 (2.3)	35.0 (2.6)			+	
Southeast ..	17.2 (1.5)	20.2 (3.6)	23.3 (3.0)	24.9 (1.4)	26.5 (1.8)	30.4 (2.3)	27.9 (3.0)	+		+	
Central .....	29.2 (1.6)	27.5 (3.6)	30.1 (2.3)	34.4 (1.8)	38.7 (2.3)	38.1 (2.6)	35.9 (2.7)			+	
West .....	25.3 (1.2)	23.1 (4.6)	26.2 (2.6)	31.7 (1.7)	29.8 (2.2)	30.1 (2.7)	30.7 (2.6)				

NA = Data are unavailable for this assessment year; NAEP = National Assessment of Educational Progress

NOTES: Standard errors of the estimated percentages appear in parentheses.

\* Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1977.

‡ Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1994.

L Indicates that the positive (+) or negative (-) linear trend is significant; Q Indicates that the positive (+) or negative (-) quadratic trend is significant.

SOURCE: National Center for Education Statistics (NCES). 1997. *NAEP 1996 Trends in Academic Progress*. NCES 97-985. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figures 5-4 and 5-6 and text table 5-3 in Volume 1.

Appendix table 5-7.

**Percentage and standard errors of 13-year-old students at the indicated level of NAEP science achievement, by sex, race/ethnicity, and region: 1977-96**

Student gender, race/ethnicity, and region	1977	1982	1986	1990	1992	1994	1996	*	‡	L	Q
<b>Level 200</b>											
Total .....	86.0 (0.7)	89.8 (0.8)	91.6 (1.0)	92.3 (0.7)	93.1 (0.5)	92.4 (0.6)	92.0 (0.8)	+		+	-
Male .....	87.2 (0.8)	91.9 (0.8)	92.9 (1.0)	92.7 (0.8)	93.1 (0.8)	92.2 (0.8)	93.2 (0.9)	+		+	-
Female .....	84.7 (0.8)	87.9 (1.0)	90.3 (1.2)	92.0 (0.8)	93.1 (0.7)	92.6 (0.6)	90.9 (1.2)	+		+	-
White .....	92.2 (0.5)	94.4 (0.6)	96.1 (0.8)	96.9 (0.4)	97.9 (0.4)	97.6 (0.4)	97.0 (0.5)	+		+	-
Black .....	57.3 (2.4)	68.6 (2.4)	73.6 (3.0)	77.6 (3.6)	73.8 (2.8)	73.5 (3.2)	75.9 (2.7)	+		+	-
Hispanic .....	62.2 (2.4)	75.5 (3.3)	76.7 (3.2)	80.2 (2.9)	86.2 (2.6)	81.2 (2.5)	81.0 (2.8)	+		+	-
Other .....	80.9 (2.9)	94.2 (2.4)	93.6 (3.8)	88.1 (4.9)	94.5 (1.9)	92.6 (1.9)	90.1 (1.6)	+			
Northeast ..	90.7 (1.4)	91.5 (1.1)	93.5 (1.2)	92.6 (1.8)	91.6 (1.5)	95.4 (1.0)	91.4 (1.7)				
Southeast ..	78.1 (1.7)	83.6 (2.2)	89.8 (1.7)	91.0 (1.2)	90.7 (1.5)	90.6 (1.3)	90.4 (1.4)	+		+	-
Central .....	89.9 (1.1)	92.0 (1.3)	91.9 (3.5)	94.6 (1.8)	95.4 (0.8)	94.0 (2.0)	95.8 (1.2)	+		+	
West .....	83.5 (1.5)	91.3 (1.4)	91.3 (1.6)	91.2 (1.3)	94.1 (1.0)	90.4 (1.3)	90.8 (1.2)	+		+	-
<b>Level 250</b>											
Total .....	48.8 (1.1)	50.9 (1.6)	52.5 (1.6)	56.5 (1.0)	61.3 (1.1)	59.5 (1.1)	57.6 (1.1)	+		+	
Male .....	52.3 (1.3)	56.2 (1.8)	57.3 (2.1)	59.8 (1.3)	62.9 (1.4)	62.0 (1.3)	61.7 (1.4)	+		+	
Female .....	45.4 (1.2)	46.0 (1.6)	47.7 (1.7)	53.3 (1.4)	59.6 (1.4)	57.1 (1.4)	53.8 (1.5)	+		+	
White .....	56.5 (0.9)	58.3 (1.4)	61.0 (1.7)	66.5 (1.2)	71.1 (1.3)	70.5 (1.1)	68.5 (1.2)	+		+	
Black .....	14.9 (1.7)	17.1 (1.9)	19.6 (2.8)	24.3 (3.3)	26.2 (2.8)	22.4 (4.3)	25.5 (2.2)	+		+	
Hispanic .....	18.1 (1.8)	24.1 (5.1)	24.9 (4.3)	30.0 (2.8)	36.5 (2.9)	31.6 (3.3)	30.9 (3.3)	+		+	
Other .....	35.6 (4.9)	64.8 (7.1)	52.6 (6.6)	47.1 (10.2)	62.0 (3.9)	58.9 (4.7)	50.2 (4.5)				
Northeast ..	56.1 (2.0)	55.1 (2.7)	59.0 (4.0)	58.1(2.7)	60.4 (2.8)	66.3 (2.0)	56.6 (3.9)				
Southeast ..	37.5 (1.6)	40.1 (2.3)	48.6 (3.3)	52.7(2.7)	57.5 (2.5)	54.6 (3.2)	51.8 (2.6)	+		+	
Central .....	54.8 (2.0)	54.1 (3.5)	49.5 (6.3)	62.7(3.1)	66.2 (2.2)	64.1 (3.7)	68.6 (1.9)	+		+	
West .....	44.5 (2.4)	53.0 (3.3)	53.3 (2.8)	53.2(2.2)	60.4 (2.2)	54.6 (2.1)	54.7 (1.6)	+		+	

NAEP = National Assessment of Educational Progress

NOTE: Standard errors of the estimated percentages appear in parentheses.

\* Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1977.

‡ Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1994.

L Indicates that the positive (+) or negative (-) linear trend is significant; Q Indicates that the positive (+) or negative (-) quadratic trend is significant.

SOURCE: National Center for Education Statistics (NCES). 1997. *NAEP 1996 Trends in Academic Progress*. NCES 97-985. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figures 5-4 and 5-6 and text table 5-3 in Volume 1.

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Appendix table 5-8.

**Percentage and standard errors of 17-year-old students at the indicated level of NAEP science achievement, by sex, race/ethnicity, and region: 1977–96**

Student gender, race/ethnicity, and region	1977	1982	1986	1990	1992	1994	1996	*	‡	L	Q
<b>Level 250</b>											
Total .....	81.6 (0.7)	76.6 (1.0)	80.7 (1.3)	81.2 (0.9)	83.3 (1.2)	83.1 (1.2)	83.8 (0.9)			+	+
Male .....	85.2 (0.7)	81.2 (1.2)	82.4 (1.4)	82.5 (1.2)	85.0 (1.4)	84.9 (1.3)	83.8 (1.1)				
Female .....	78.0 (1.0)	72.2 (1.3)	79.1 (1.7)	79.9 (1.4)	81.6 (1.4)	81.6 (1.6)	83.7 (1.2)	+		+	+
White .....	88.2 (0.4)	84.9 (0.9)	87.8 (1.4)	89.6 (0.8)	90.5 (1.0)	91.5 (0.9)	91.2 (0.7)	+		+	
Black .....	40.5 (1.5)	35.0 (2.1)	52.2 (3.2)	51.4 (3.7)	55.7 (3.7)	58.1 (3.7)	59.8 (3.2)	+		+	
Hispanic .....	61.5 (1.7)	48.0 (2.7)	60.0 (7.2)	59.5 (5.0)	68.3 (6.6)	58.6 (7.4)	67.6 (4.5)				
Other .....	78.7 (2.9)	65.4 (5.8)	71.0 (7.0)	79.2 (3.8)	78.4 (4.4)	82.7 (5.0)	79.5 (6.0)				
Northeast ..	85.4 (1.6)	77.5 (1.9)	80.3 (3.9)	82.1 (2.8)	85.8 (2.3)	85.5 (2.9)	83.9 (2.4)				
Southeast ..	72.2 (1.5)	71.2 (2.3)	76.9 (1.9)	76.8 (2.2)	76.1 (2.0)	80.2 (2.4)	78.9 (1.9)			+	
Central .....	85.1 (1.1)	81.1 (2.3)	85.7 (1.8)	86.9 (2.0)	90.3 (2.2)	85.4 (2.9)	91.1 (1.6)	+		+	
West .....	79.9 (1.2)	74.8 (2.5)	78.8 (3.0)	79.0 (1.9)	81.7 (3.0)	81.7 (3.0)	81.2 (2.1)				
<b>Level 300</b>											
Total .....	41.7 (0.9)	37.3 (0.9)	41.3 (1.4)	43.3 (1.3)	46.6 (1.5)	47.5 (1.3)	48.4 (1.3)	+		+	+
Male .....	48.8 (1.1)	45.2 (1.2)	48.8 (2.1)	48.2 (1.6)	50.9 (2.0)	52.9 (1.8)	53.1 (1.5)	+		+	
Female .....	34.8 (1.0)	29.9 (1.2)	34.1 (1.5)	38.7 (1.7)	42.0 (1.7)	42.4 (1.8)	43.9 (1.7)	+		+	+
White .....	47.5 (0.7)	43.9 (1.1)	48.7 (1.7)	51.2 (1.5)	55.4 (1.7)	57.5 (1.6)	58.5 (1.6)	+		+	+
Black .....	7.7 (1.0)	6.5 (1.1)	12.5 (2.2)	15.7 (4.0)	14.1 (2.5)	15.4 (2.3)	17.7 (2.7)	+		+	
Hispanic .....	18.5 (2.1)	11.1 (2.0)	14.8 (2.9)	21.1 (3.3)	23.0 (3.8)	21.7 (4.1)	23.9 (2.5)	+			
Other .....	36.6 (3.8)	25.2 (4.8)	35.0 (8.1)	45.2 (6.5)	42.9 (6.1)	44.4 (8.0)	46.8 (7.5)				
Northeast ..	47.9 (1.8)	38.3 (1.9)	46.6 (4.0)	45.7 (2.7)	52.0 (2.5)	52.0 (3.6)	48.4 (4.0)				
Southeast ..	31.6 (1.8)	32.2 (2.2)	37.0 (2.0)	37.5 (2.7)	36.9 (2.8)	40.9 (2.5)	41.2 (2.9)	+		+	
Central .....	45.0 (1.3)	42.1 (2.2)	45.0 (2.5)	51.7 (3.1)	56.4 (2.6)	51.1 (2.7)	59.0 (3.2)	+		+	
West .....	38.6 (1.4)	35.0 (2.2)	36.3 (3.5)	38.7 (2.5)	42.2 (3.4)	46.2 (3.5)	45.2 (2.3)			+	

NAEP = National Assessment of Educational Progress

NOTES: Standard errors of the estimated percentages appear in parentheses. When no value appears (xx), statistical tests involving this value should be interpreted with caution; standard error estimates may not be accurately determined and/or the sampling distribution of the statistic does not match statistical test assumptions (see source for additional detail).

\*Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1977.

‡Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1994.

L Indicates that the positive (+) or negative (-) linear trend is significant; Q Indicates that the positive (+) or negative (-) quadratic trend is significant.

SOURCE: National Center for Education Statistics (NCES). 1997. *NAEP 1996 Trends in Academic Progress*. NCES 97-985. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figures 5-4 and 5-6 and text table 5-3 in Volume 1.

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Appendix table 5-9.

**Percentage and standard errors of 9-year-old students at the indicated level of NAEP mathematics achievement, by gender race/ethnicity, and region: 1978-96**

Student gender, race/ethnicity, and region	1978	1982	1986	1990	1992	1994	1996	*	†	L	Q
<b>Level 200</b>											
Total .....	70.4 (0.9)	71.4 (1.2)	74.1 (1.2)	81.5 (1.0)	81.4 (0.8)	82.0 (0.7)	81.5 (0.8)	+		+	
Male .....	68.9 (1.0)	68.8 (1.3)	74.0 (1.4)	80.6 (1.0)	81.9 (1.0)	82.3 (0.9)	82.5 (1.1)	+		+	
Female .....	72.0 (1.1)	74.0 (1.3)	74.3 (1.3)	82.3 (1.3)	80.9 (1.1)	81.7 (0.9)	80.7 (0.9)	+		+	
White .....	76.3 (1.0)	76.8 (1.2)	79.6 (1.3)	86.9 (0.9)	86.9 (0.7)	87.0 (0.8)	86.6 (0.8)	+		+	
Black .....	42.0 (1.4)	46.1 (2.4)	53.4 (2.5)	60.0 (2.8)	59.8 (2.8)	65.9 (2.6)	65.3 (2.4)	+		+	
Hispanic .....	54.2 (2.8)	55.7 (2.3)	57.6 (2.9)	68.4 (3.0)	65.0 (2.9)	63.5 (3.1)	67.1 (2.1)	+		+	
Other .....	80.3 (3.6)	85.2 (3.4)	70.4 (8.0)	87.0 (5.4)	87.8 (3.1)	79.6 (3.9)	82.7 (3.4)				
Northeast ..	78.7 (2.3)	78.0 (2.1)	77.9 (3.2)	85.9 (2.2)	85.5 (1.8)	87.0 (1.9)	85.4 (1.7)			+	
Southeast ..	60.3 (1.8)	62.5 (2.3)	70.6 (2.7)	75.1 (2.8)	72.9 (2.0)	80.7 (1.0)	78.1 (1.7)	+		+	
Central .....	75.9 (1.7)	73.8 (2.7)	77.6 (2.5)	83.7 (1.3)	85.3 (1.4)	85.0 (1.5)	83.9 (1.9)	+		+	
West .....	65.6 (1.7)	71.9 (2.2)	70.5 (2.9)	81.4 (1.8)	81.6 (2.1)	76.4 (1.6)	79.5 (1.4)	+		+	
<b>Level 250</b>											
Total .....	19.6 (0.7)	18.8 (1.0)	20.7 (0.9)	27.7 (0.9)	27.8 (0.9)	29.1 (1.1)	29.7 (1.0)	+		+	
Male .....	19.2 (0.6)	18.1 (1.1)	20.9 (1.1)	27.5 (1.0)	29.4 (1.2)	31.5 (1.6)	32.7 (1.7)	+		+	+
Female .....	19.9 (1.0)	19.6 (1.1)	20.6 (1.3)	27.9 (1.3)	26.3 (1.5)	28.3 (1.3)	26.7 (1.1)	+		+	
White .....	22.9 (0.9)	21.8 (1.1)	24.6 (1.0)	32.7 (1.0)	32.4 (1.0)	35.3 (1.3)	35.7 (1.4)	+		+	
Black .....	4.1 (0.6)	4.4 (0.8)	5.6 (0.9)	9.4 (1.7)	9.6 (1.4)	11.1 (1.7)	10.0 (1.2)	+		+	
Hispanic .....	9.2 (2.5)	7.8 (1.7)	7.3 (2.8)	11.3 (3.5)	11.7 (2.5)	9.7 (1.8)	13.8 (2.3)				
Other .....	25.1 (3.6)	38.3 (4.7)	25.1 (6.4)	31.7 (3.6)	38.7 (5.2)	31.2 (5.5)	30.5 (4.4)				
Northeast ..	25.9 (1.6)	23.8 (1.4)	24.8 (2.7)	34.4 (2.1)	32.4 (2.1)	37.2 (2.8)	35.6 (2.6)	+		+	
Southeast ..	13.4 (0.8)	13.6 (1.7)	17.2 (2.4)	24.0 (2.0)	20.3 (1.6)	27.3 (2.4)	25.8 (2.2)	+		+	
Central .....	23.2 (1.4)	19.9 (2.5)	24.7 (1.8)	27.5 (1.8)	31.4 (1.9)	30.3 (2.6)	31.6 (2.7)	+		+	
West .....	14.9 (1.1)	18.6 (1.4)	16.3 (2.2)	25.6 (1.6)	27.1 (2.5)	26.0 (1.2)	26.9 (1.6)	+		+	

NAEP = National Assessment of Educational Progress

NOTES: Standard errors of the estimated percentages appear in parentheses. When no value appears (xx), statistical tests involving this value should be interpreted with caution; standard error estimates may not be accurately determined and/or the sampling distribution of the statistic does not match statistical test assumptions (see source for additional detail).

\*Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1978.

†Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1994.

L Indicates that the positive (+) or negative (-) linear trend is significant; Q Indicates that the positive (+) or negative (-) quadratic trend is significant.

SOURCE: National Center for Education Statistics (NCES). 1997. *NAEP 1996 Trends in Academic Progress*. NCES 97-985. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figures 5-5 and 5-7 and text table 5-4 in Volume 1.

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Appendix table 5-10.

**Percentage and standard errors of 13-year-old students at the indicated level of NAEP mathematics achievement, by gender, race/ethnicity, and region: 1978-96**

Student gender, race/ethnicity, and region	1978	1982	1986	1990	1992	1994	1996	*	‡	L	Q
<b>Level 200</b>											
Total .....	94.6 (0.5)	97.7 (0.4)	98.6 (0.2)	98.5 (0.2)	98.7 (0.3)	98.5 (0.3)	98.8 (0.2)	+		+	-
Male .....	93.9 (0.5)	97.5 (0.6)	98.5 (0.3)	98.2 (0.3)	98.8 (0.4)	98.3 (0.4)	98.7 (0.3)	+		+	-
Female .....	95.2 (0.5)	98.0 (0.3)	98.6 (0.3)	98.9 (0.2)	98.6 (0.2)	98.7 (0.3)	98.8 (0.3)	+		+	-
White .....	97.6 (0.3)	99.1 (0.1)	99.3 (0.3)	99.4 (0.1)	99.6 (0.2)	99.3 (0.2)	99.6 (0.2)	+		+	-
Black .....	79.7 (1.5)	90.2 (1.6)	95.4 (0.9)	95.4 (1.1)	95.0 (1.4)	95.6 (1.6)	96.2 (1.3)	+		+	-
Hispanic .....	86.4 (0.9)	95.9 (0.9)	96.9 (1.4)	96.8 (1.1)	98.1 (0.7)	97.1 (1.3)	96.2 (0.8)	+		+	-
Other .....	97.3 (1.5)	99.1 (0.6)	99.6 (x.x)	98.3 (1.0)	99.0 (x.x)	99.3 (x.x)	98.7 (x.x)				
Northeast ..	96.5 (0.9)	99.0 (0.3)	99.2 (0.2)	99.1 (0.6)	98.6 (0.7)	99.5 (0.3)	98.9 (0.5)				
Southeast ..	90.1 (1.6)	95.6 (1.0)	98.3 (0.6)	97.8 (0.6)	98.0 (0.7)	98.2 (0.5)	98.4 (0.7)	+		+	-
Central .....	96.8 (0.4)	98.6 (0.5)	98.4 (1.0)	99.0 (0.3)	99.3 (0.4)	98.7 (0.9)	99.2 (0.3)	+		+	
West .....	94.0 (0.9)	97.6 (0.9)	98.3 (0.5)	98.3 (0.5)	98.8 (0.4)	98.0 (0.5)	98.6 (0.4)	+		+	-
<b>Level 250</b>											
Total .....	64.9 (1.2)	71.4 (1.2)	73.3 (1.6)	74.7 (1.0)	77.9 (1.1)	78.1 (1.1)	78.6 (0.9)	+		+	
Male .....	63.9 (1.3)	71.3 (1.4)	73.8 (1.8)	75.1 (1.8)	78.1 (1.6)	78.9 (1.5)	79.8 (1.4)	+		+	
Female .....	65.9 (1.2)	71.4 (1.3)	72.7 (1.9)	74.4 (1.3)	77.7 (1.1)	77.3 (1.0)	77.4 (1.1)	+		+	
White .....	72.9 (0.9)	78.3 (0.9)	78.9 (1.7)	82.0 (1.0)	84.9 (1.1)	85.5 (0.9)	86.4 (1.0)	+		+	
Black .....	28.7 (2.1)	37.9 (2.5)	49.0 (3.7)	48.7 (3.6)	51.0 (2.7)	51.0 (3.9)	53.7 (2.6)	+		+	
Hispanic .....	36.0 (2.9)	52.2 (2.5)	56.0 (5.0)	56.7 (3.3)	63.3 (2.7)	59.2 (2.2)	58.3 (2.3)	+		+	-
Other .....	68.6 (4.3)	75.3 (5.9)	85.7 (4.7)	76.5 (5.0)	82.9 (3.2)	84.8 (3.0)	81.1 (3.5)				
Northeast ..	73.4 (2.4)	79.4 (1.5)	80.5 (2.2)	78.2 (2.3)	78.4 (2.5)	86.7 (1.4)	79.5 (3.1)				
Southeast ..	53.5 (3.6)	60.3 (2.0)	68.6 (2.3)	70.1 (2.4)	74.8 (2.7)	73.9 (3.1)	75.3 (2.1)	+		+	
Central .....	70.4 (1.9)	75.9 (2.4)	70.7 (6.3)	77.9 (2.8)	80.6 (1.8)	78.9 (3.4)	85.0 (1.9)	+		+	
West .....	60.5 (2.4)	69.0 (3.0)	73.9 (2.2)	72.9 (1.8)	77.7 (2.0)	74.7 (1.8)	75.7 (1.7)	+		+	-

NAEP = National Assessment of Educational Progress

NOTES: Standard errors of the estimated percentages appear in parentheses. When no value appears (xx), statistical tests involving this value should be interpreted with caution; standard error estimates may not be accurately determined and/or the sampling distribution of the statistic does not match statistical test assumptions (see source for additional detail).

\*Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1978

‡Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1994

L Indicates that the positive (+) or negative (-) linear trend is significant; Q Indicates that the positive (+) or negative (-) quadratic trend is significant

SOURCE: National Center for Education Statistics (NCES). 1997. *NAEP 1996 Trends in Academic Progress*. NCES 97-985. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figures 5-5 and 5-7 and text table 5-4 in Volume 1.

Appendix table 5-11.

**Percentage and standard errors of 17-year-old students at the indicated level of NAEP mathematics achievement, by gender, race/ethnicity, and region: 1978-96**

Student gender, race/ethnicity, and region	1978	1982	1986	1990	1992	1994	1996	*	‡	L	Q
<b>Level 250</b>											
Total .....	92.0 (0.5)	93.0 (0.5)	95.6 (0.5)	96.0 (0.5)	96.6 (0.5)	96.5 (0.5)	96.8 (0.4)	+		+	-
Male .....	93.0 (0.5)	93.9 (0.6)	96.1 (0.6)	95.8 (0.8)	96.9 (0.6)	97.3 (0.6)	97.0 (0.7)	+		+	
Female .....	91.0 (0.6)	92.1 (0.6)	95.1 (0.7)	96.2 (0.8)	96.3 (0.8)	96.0 (0.6)	96.7 (0.6)	+		+	
White .....	95.6 (0.3)	96.2 (0.3)	98.0 (0.4)	97.6 (0.3)	98.3 (0.4)	98.4 (0.4)	98.7 (0.4)	+		+	
Black .....	70.7 (1.7)	76.4 (1.5)	85.6 (2.5)	92.4 (2.2)	89.6 (2.5)	90.6 (1.8)	90.6 (1.3)	+		+	-
Hispanic .....	78.3 (2.3)	81.4 (1.9)	89.3 (2.5)	85.8 (4.2)	94.1 (2.2)	91.8 (3.6)	92.2 (2.2)	+		+	
Other .....	94.5 (2.6)	97.2 (1.7)	91.9 (2.7)	97.9 (x.x)	96.5 (1.7)	97.0 (x.x)	97.4 (1.2)				
Northeast ..	93.8 (0.6)	95.2 (0.9)	96.6 (0.9)	94.5 (1.7)	97.3 (0.7)	97.3 (0.8)	97.5 (1.0)	+		+	
Southeast ..	87.6 (1.3)	89.2 (1.7)	94.1 (1.0)	96.2 (0.7)	95.6 (1.7)	95.6 (0.7)	95.7 (0.7)	+		+	
Central .....	94.9 (0.8)	94.8 (0.5)	96.8 (0.9)	97.8 (0.6)	97.9 (0.7)	97.3 (0.8)	99.0 (0.6)	+		+	
West .....	90.5 (1.1)	91.8 (1.0)	94.8 (1.1)	95.5 (1.0)	95.8 (1.2)	96.1 (1.4)	95.4 (0.9)	+		+	
<b>Level 300</b>											
Total .....	51.5 (1.1)	48.5 (1.3)	51.7 (1.4)	56.1 (1.4)	59.1 (1.3)	58.6 (1.4)	60.1 (1.7)	+		+	
Male .....	55.1 (1.2)	51.9 (1.5)	54.6 (1.8)	57.6 (1.4)	60.5 (1.8)	60.2 (2.1)	62.7 (1.8)	+		+	
Female .....	48.2 (1.3)	45.3 (1.4)	48.9 (1.7)	54.7 (1.8)	57.7 (1.6)	57.2 (1.4)	57.6 (2.2)	+		+	
White .....	57.6 (1.1)	54.7 (1.4)	59.1 (1.7)	63.2 (1.6)	66.4 (1.4)	67.0 (1.4)	68.7 (2.2)	+		+	
Black .....	16.8 (1.6)	17.1 (1.5)	20.8 (2.8)	32.8 (4.5)	29.8 (3.9)	29.8 (3.4)	31.2 (2.5)	+		+	
Hispanic .....	23.4 (2.7)	21.6 (2.2)	26.5 (4.5)	30.1 (3.1)	39.2 (4.9)	38.3 (5.5)	40.1 (3.5)	+		+	
Other .....	64.7 (4.9)	62.0 (6.8)	54.9 (8.2)	61.6 (7.0)	69.8 (4.8)	66.4 (6.6)	63.5 (7.2)				
Northeast ..	59.2 (2.1)	55.6 (2.5)	58.9 (2.9)	55.7 (3.2)	64.8 (2.8)	66.6 (3.8)	61.3 (4.7)				
Southeast ..	42.4 (1.9)	41.7 (2.6)	45.5 (2.0)	49.4 (2.8)	51.6 (2.8)	51.3 (2.5)	53.1 (3.0)	+		+	
Central .....	57.1 (2.3)	52.0 (2.3)	53.9 (2.6)	65.3 (3.3)	68.5 (3.0)	60.2 (3.2)	69.6 (3.5)	+		+	
West .....	45.3 (2.3)	43.3 (2.7)	48.3 (4.1)	53.8 (2.6)	53.1 (3.3)	57.1 (2.6)	56.6 (3.3)			+	

NAEP = National Assessment of Educational Progress

NOTES: Standard errors of the estimated percentages appear in parentheses. When no value appears (xx), statistical tests involving this value should be interpreted with caution; standard error estimates may not be accurately determined and/or the sampling distribution of the statistic does not match statistical test assumptions (see source for additional details).

\*Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1978.

‡Indicates that the percentage in 1996 is significantly larger (+) or smaller (-) than that in 1994.

L Indicates that the positive (+) or negative (-) linear trend is significant; Q Indicates that the positive (+) or negative (-) quadratic trend is significant.

SOURCE: National Center for Education Statistics (NCES). 1997. *NAEP 1996 Trends in Academic Progress*. NCES 97-985. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figures 5-5 and 5-7 and text table 5-4 in Volume 1.

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Appendix table 5-12.

**Trends in differences in average scale scores by race/ethnicity and gender**

Race/ethnicity and gender	Science			Mathematics		
	1969-70	1996	Trends	1973	1996	Trends
<b>White vs. black students (white minus black)</b>						
Age 17 .....	54*	47	I	40*	27	IQ
Age 13 .....	49*	40	IQ	46*	29	IQ
Age 9 .....	57*	37	IQ	35*	25	I
<b>White vs. Hispanic<sup>a</sup> students (white minus Hispanic)</b>						
Age 17 .....	35	38		33*	21	I
Age 13 .....	43*	34		35*	26	IQ
Age 9 .....	38	32		23	22	
<b>Male vs. female students (male minus female)</b>						
Age 17 .....	17*	8	I	8	5	I
Age 13 .....	4	9	q	-2*	4	L
Age 9 .....	5	3		-3*	4	L

L = Positive Linear Trend; Q = Positive Quadratic Trend; I = Negative Linear Trend; q = Negative Quadratic Trend

<sup>a</sup>For Hispanic students, the data cover assessments from 1977 to 1996.

\*Differences in scores show significant change when compared to 1996, at a 5 percent combined significance level per set of comparisons.

SOURCES: National Center for Education Statistics (NCES). 1997. *NAEP 1996 Trends in Academic Progress*. NCES 97-985; 1998. *NAEP Facts: Long-Term Trends in Student Mathematics Performance* 3 No. 2. August; 1998. *NAEP Facts: Long-Term Trends in Student Science Performance* 3 No. 3. September. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See page 5-17 in Volume 1.

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Appendix table 5-13.

**Overall mean and average percentage correct on grade 4 TIMSS science assessment, by country and content area: 1994–95**

Country	Mean	Percentage correct										
		All science content areas		Earth sciences		Life sciences		Physical sciences		Environmental issues/nature of science		
<b>All countries</b> .....	524.0	(0.7)	59.0	(0.1)	57.0	(0.1)	64.0	(0.1)	57.0	(0.2)	51.0	(0.2)
(Australia) .....	562.0	(2.9)	66.0	(0.5)	61.0	(0.6)	72.0	(0.5)	63.0	(0.7)	63.0	(0.8)
(Austria) .....	565.0	(3.3)	66.0	(0.7)	62.0	(0.8)	72.0	(0.7)	64.0	(0.8)	54.0	(1.0)
Canada .....	549.0	(3.0)	64.0	(0.6)	62.0	(0.6)	68.0	(0.6)	61.0	(0.7)	56.0	(0.7)
Cyprus .....	475.0	(3.3)	51.0	(0.5)	48.0	(0.7)	55.0	(0.5)	50.0	(0.7)	42.0	(1.0)
Czech Republic .....	557.0	(3.1)	65.0	(0.5)	64.0	(0.6)	71.0	(0.5)	62.0	(0.7)	56.0	(0.9)
(England and Wales) .....	551.0	(3.3)	63.0	(0.6)	61.0	(0.6)	68.0	(0.6)	60.0	(0.8)	56.0	(1.0)
Greece .....	497.0	(4.1)	54.0	(0.8)	52.0	(0.9)	61.0	(0.9)	49.0	(0.9)	43.0	(1.2)
Hong Kong .....	533.0	(3.7)	62.0	(0.7)	61.0	(0.6)	68.0	(0.7)	60.0	(0.8)	50.0	(1.1)
(Hungary) .....	532.0	(3.4)	62.0	(0.6)	62.0	(0.7)	66.0	(0.6)	59.0	(0.8)	50.0	(0.9)
Iceland .....	505.0	(3.3)	55.0	(0.7)	55.0	(0.7)	60.0	(0.8)	52.0	(0.7)	47.0	(1.2)
Iran .....	416.0	(3.9)	40.0	(0.7)	38.0	(0.7)	44.0	(0.7)	40.0	(0.9)	26.0	(0.9)
Ireland .....	539.0	(3.3)	61.0	(0.6)	60.0	(0.8)	66.0	(0.6)	57.0	(0.7)	55.0	(0.9)
(Israel) .....	505.0	(3.6)	57.0	(0.8)	51.0	(0.8)	61.0	(0.9)	55.0	(0.9)	51.0	(1.3)
Japan .....	574.0	(1.8)	70.0	(0.3)	66.0	(0.4)	73.0	(0.3)	70.0	(0.4)	62.0	(0.6)
Kuwait .....	401.0	(3.1)	39.0	(0.5)	36.0	(0.6)	45.0	(0.6)	37.0	(0.5)	25.0	(0.7)
(Latvia (LSS)) .....	512.0	(4.9)	56.0	(0.8)	57.0	(1.0)	60.0	(0.8)	54.0	(0.9)	46.0	(1.2)
(Netherlands) .....	557.0	(3.1)	67.0	(0.5)	61.0	(0.6)	73.0	(0.5)	65.0	(0.6)	61.0	(0.9)
New Zealand .....	531.0	(4.9)	60.0	(0.9)	57.0	(0.9)	66.0	(0.9)	57.0	(1.1)	54.0	(1.2)
Norway .....	530.0	(3.6)	60.0	(0.6)	60.0	(0.6)	67.0	(0.7)	55.0	(0.7)	53.0	(0.9)
Portugal .....	480.0	(4.0)	50.0	(0.7)	50.0	(0.8)	54.0	(0.8)	49.0	(0.9)	39.0	(1.0)
Scotland .....	536.0	(4.2)	60.0	(0.8)	58.0	(0.9)	65.0	(0.8)	57.0	(0.8)	53.0	(1.2)
Singapore .....	547.0	(5.0)	64.0	(0.8)	58.0	(0.8)	70.0	(0.8)	64.0	(0.8)	53.0	(1.1)
(Slovenia) .....	546.0	(3.3)	64.0	(0.7)	64.0	(0.7)	68.0	(0.7)	61.0	(0.8)	54.0	(0.8)
South Korea .....	597.0	(1.9)	74.0	(0.4)	72.0	(0.5)	76.0	(0.4)	75.0	(0.5)	70.0	(0.8)
(Thailand) .....	473.0	(4.9)	49.0	(0.9)	48.0	(0.9)	52.0	(0.8)	46.0	(1.0)	48.0	(1.4)
<b>United States</b> .....	565.0	(3.1)	66.0	(0.5)	64.0	(0.7)	71.0	(0.6)	60.0	(0.6)	65.0	(0.8)

TIMSS = Third International Mathematics and Science Study

NOTE: Standard errors are shown in parentheses. Countries not meeting sampling or other guidelines are shown in parentheses.

SOURCES: Mullis, I., M. Martin, A. Beaton, E. Gonzalez, D. Kelly, and T. Smith, 1997. *Mathematics Achievement in the Primary School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center.

See figure 5-8 in Volume 1.

Science &amp; Engineering Indicators – 2000

Appendix table 5-14.

**Overall mean and average percentage correct on grade 4 TIMSS mathematics assessment, by country and content area: 1994–95**

Country	Percentage correct										
	Mean	All mathematics content areas		Whole numbers	Fractions and proportionality	Measurement, estimation, and probability	Data representation, analysis, and probability	Geometry	Patterns, relations, and functions		
<b>All countries</b> .....	529.0	(5.1)	59.0 (0.2)	67.0 (0.2)	49.0 (0.2)	56.0 (0.2)	62.0 (0.2)	64.0 (0.2)	60.0 (0.2)		
(Australia) .....	546.0	(3.1)	63.0 (0.6)	67.0 (0.6)	51.0 (0.7)	60.0 (0.7)	67.0 (0.8)	74.0 (0.7)	64.0 (0.9)		
(Austria) .....	559.0	(3.1)	65.0 (0.7)	74.0 (0.8)	51.0 (0.8)	69.0 (0.8)	66.0 (1.1)	67.0 (0.8)	64.0 (1.1)		
Canada .....	532.0	(3.3)	60.0 (1.0)	68.0 (0.9)	48.0 (1.0)	54.0 (1.1)	68.0 (1.4)	72.0 (1.4)	62.0 (1.5)		
Cyprus .....	502.0	(3.1)	54.0 (0.6)	65.0 (0.7)	48.0 (0.7)	48.0 (0.8)	52.0 (0.9)	53.0 (0.9)	55.0 (1.1)		
Czech Republic .....	567.0	(3.3)	66.0 (0.6)	75.0 (0.6)	53.0 (0.8)	68.0 (0.7)	67.0 (0.9)	71.0 (0.7)	67.0 (0.9)		
(England and Wales) .....	513.0	(3.2)	57.0 (0.7)	58.0 (0.7)	45.0 (0.8)	52.0 (0.7)	64.0 (0.9)	74.0 (0.8)	55.0 (1.0)		
Greece .....	492.0	(4.4)	51.0 (0.9)	62.0 (1.0)	42.0 (1.1)	48.0 (1.0)	50.0 (1.2)	53.0 (1.2)	47.0 (1.2)		
Hong Kong .....	587.0	(4.3)	73.0 (0.9)	79.0 (0.9)	66.0 (1.0)	69.0 (0.9)	76.0 (1.0)	74.0 (0.8)	73.0 (1.2)		
(Hungary) .....	548.0	(3.7)	64.0 (0.8)	76.0 (0.7)	49.0 (0.9)	64.0 (0.9)	60.0 (1.0)	66.0 (0.8)	69.0 (1.1)		
Iceland .....	474.0	(2.7)	50.0 (0.8)	56.0 (0.9)	36.0 (1.0)	44.0 (0.9)	58.0 (1.2)	63.0 (1.0)	48.0 (1.4)		
Iran .....	429.0	(4.0)	38.0 (0.9)	51.0 (1.2)	32.0 (1.0)	36.0 (0.9)	23.0 (0.9)	42.0 (0.9)	40.0 (1.4)		
Ireland .....	550.0	(3.4)	63.0 (0.8)	70.0 (0.8)	58.0 (1.0)	56.0 (0.9)	69.0 (0.9)	66.0 (0.8)	64.0 (1.0)		
(Israel) .....	531.0	(3.5)	59.0 (1.0)	71.0 (1.0)	48.0 (1.1)	54.0 (1.0)	64.0 (1.2)	62.0 (1.0)	60.0 (1.5)		
Japan .....	597.0	(2.1)	74.0 (0.4)	82.0 (0.4)	65.0 (0.6)	72.0 (0.5)	79.0 (0.5)	72.0 (0.6)	76.0 (0.6)		
(Kuwait) .....	400.0	(2.8)	32.0 (0.5)	36.0 (0.5)	25.0 (0.5)	35.0 (0.6)	26.0 (0.6)	36.0 (0.6)	33.0 (1.0)		
(Latvia (LSS)) .....	525.0	(4.8)	59.0 (1.0)	68.0 (0.9)	44.0 (1.3)	60.0 (1.0)	54.0 (1.3)	67.0 (1.0)	65.0 (1.2)		
(Netherlands) .....	577.0	(3.4)	69.0 (0.7)	75.0 (0.8)	60.0 (0.9)	70.0 (0.8)	75.0 (0.9)	71.0 (0.8)	65.0 (1.1)		
New Zealand .....	499.0	(4.3)	53.0 (1.0)	57.0 (1.0)	41.0 (1.1)	49.0 (1.1)	61.0 (1.3)	66.0 (1.1)	52.0 (1.2)		
Norway .....	502.0	(3.0)	53.0 (0.7)	61.0 (0.8)	38.0 (0.7)	56.0 (0.7)	59.0 (0.9)	58.0 (0.9)	50.0 (1.2)		
Portugal .....	475.0	(3.5)	48.0 (0.7)	57.0 (0.8)	38.0 (0.7)	49.0 (0.8)	43.0 (1.1)	52.0 (1.0)	47.0 (1.1)		
Scotland .....	520.0	(3.9)	58.0 (0.8)	61.0 (0.8)	46.0 (1.0)	53.0 (0.9)	66.0 (1.0)	72.0 (0.8)	57.0 (1.0)		
Singapore .....	625.0	(5.3)	76.0 (0.8)	83.0 (0.7)	74.0 (1.0)	67.0 (1.0)	81.0 (0.8)	72.0 (0.8)	76.0 (0.9)		
(Slovenia) .....	552.0	(3.2)	64.0 (0.6)	74.0 (0.6)	50.0 (0.9)	64.0 (0.9)	64.0 (1.0)	72.0 (0.8)	68.0 (0.8)		
South Korea .....	611.0	(2.1)	76.0 (0.4)	88.0 (0.3)	65.0 (0.5)	72.0 (0.5)	80.0 (0.6)	72.0 (0.6)	83.0 (0.7)		
(Thailand) .....	490.0	(4.7)	50.0 (1.1)	58.0 (1.3)	44.0 (1.0)	44.0 (1.0)	56.0 (1.5)	53.0 (1.2)	50.0 (1.3)		
<b>United States</b> .....	545.0	(3.0)	63.0 (0.6)	71.0 (0.7)	51.0 (0.8)	53.0 (0.6)	73.0 (0.9)	71.0 (0.7)	66.0 (0.9)		

TIMSS = Third International Mathematics and Science Study

NOTE: Standard errors are shown in parentheses. Countries not meeting sampling or other guidelines are shown in parentheses.

SOURCES: Mullis, I., M. Martin, A. Beaton, E. Gonzalez, D. Kelly, and T. Smith, 1997. *Mathematics Achievement in the Primary School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center.

See figure 5-8 in Volume 1.

Science &amp; Engineering Indicators – 2000

Appendix table 5-15.

**Overall mean and average percentage correct on grade 8 TIMSS science assessment, by country and content area: 1994-95**

Country	Percentage correct										
	Mean	All science content areas	Earth sciences	Life sciences	Physics	Chemistry	Environmental issues/nature of science				
<b>All countries</b> .....	516.0	NR	56.0 (0.1)	55.0 (0.1)	59.0 (0.1)	55.0 (0.1)	51.0 (0.2)	53.0 (0.2)			
(Australia) .....	545.0	(3.9)	60.0 (0.7)	57.0 (0.8)	63.0 (0.8)	60.0 (0.7)	54.0 (0.9)	62.0 (1.0)			
(Austria) .....	558.0	(3.7)	61.0 (0.7)	62.0 (0.8)	65.0 (0.7)	62.0 (0.7)	58.0 (1.1)	55.0 (0.9)			
(Belgium (Flemish)) .....	550.0	(4.2)	60.0 (1.1)	62.0 (1.2)	64.0 (1.1)	61.0 (1.1)	51.0 (1.3)	58.0 (1.5)			
(Belgium (French)) ....	471.0	(2.8)	50.0 (0.7)	50.0 (0.9)	55.0 (0.9)	51.0 (0.7)	41.0 (0.8)	46.0 (1.0)			
(Bulgaria) .....	565.0	(5.3)	62.0 (1.0)	58.0 (1.2)	64.0 (1.0)	60.0 (1.0)	65.0 (1.7)	59.0 (1.5)			
Canada .....	531.0	(2.6)	59.0 (0.5)	58.0 (0.6)	62.0 (0.6)	59.0 (0.4)	52.0 (0.7)	61.0 (0.7)			
(Colombia) .....	411.0	(4.1)	39.0 (0.8)	37.0 (0.8)	44.0 (0.9)	37.0 (0.8)	32.0 (1.0)	40.0 (1.1)			
Cyprus .....	463.0	(1.9)	47.0 (0.4)	46.0 (0.6)	49.0 (0.5)	46.0 (0.4)	45.0 (0.6)	46.0 (0.8)			
Czech Republic .....	574.0	(4.3)	64.0 (0.8)	63.0 (1.2)	69.0 (0.8)	64.0 (0.7)	60.0 (1.2)	59.0 (1.1)			
(Denmark) .....	478.0	(3.1)	51.0 (0.6)	49.0 (0.7)	56.0 (0.7)	53.0 (0.7)	41.0 (0.8)	47.0 (1.0)			
(England and Wales) .....	552.0	(3.3)	61.0 (0.6)	59.0 (0.8)	64.0 (0.8)	62.0 (0.6)	55.0 (0.8)	65.0 (1.0)			
France .....	498.0	(2.5)	54.0 (0.6)	55.0 (0.8)	56.0 (0.8)	54.0 (0.5)	47.0 (0.9)	53.0 (0.9)			
(Germany) .....	531.0	(4.8)	58.0 (1.0)	57.0 (1.0)	63.0 (1.1)	57.0 (1.0)	54.0 (1.3)	51.0 (1.3)			
(Greece) .....	497.0	(2.2)	52.0 (0.5)	49.0 (0.6)	54.0 (0.6)	53.0 (0.5)	51.0 (0.5)	51.0 (1.0)			
Hong Kong .....	522.0	(4.7)	58.0 (1.0)	54.0 (1.0)	61.0 (1.0)	58.0 (0.9)	55.0 (1.0)	55.0 (1.3)			
Hungary .....	554.0	(2.8)	61.0 (0.6)	60.0 (0.8)	65.0 (0.7)	60.0 (0.6)	60.0 (0.8)	53.0 (0.8)			
Iceland .....	494.0	(4.0)	52.0 (0.9)	50.0 (1.2)	58.0 (1.0)	53.0 (0.9)	42.0 (0.8)	49.0 (1.0)			
Iran .....	470.0	(2.4)	47.0 (0.6)	45.0 (0.6)	49.0 (0.6)	48.0 (0.7)	52.0 (0.8)	39.0 (1.1)			
Ireland .....	538.0	(4.5)	58.0 (0.9)	61.0 (1.0)	60.0 (1.1)	56.0 (0.8)	54.0 (1.0)	60.0 (1.1)			
(Israel) .....	524.0	(5.7)	57.0 (1.1)	55.0 (1.1)	61.0 (1.1)	57.0 (1.1)	53.0 (1.5)	52.0 (1.6)			
Japan .....	571.0	(1.6)	65.0 (0.3)	61.0 (0.4)	71.0 (0.4)	67.0 (0.3)	61.0 (0.5)	60.0 (0.7)			
(Kuwait) .....	430.0	(3.7)	43.0 (0.9)	43.0 (1.0)	45.0 (1.1)	43.0 (0.7)	40.0 (1.5)	39.0 (1.3)			
(Latvia (LSS)) .....	485.0	(2.7)	50.0 (0.6)	48.0 (0.8)	53.0 (0.7)	51.0 (0.7)	48.0 (0.8)	47.0 (1.0)			
(Lithuania) .....	476.0	(3.4)	49.0 (0.7)	46.0 (0.9)	52.0 (0.9)	51.0 (0.7)	48.0 (0.9)	40.0 (1.0)			
(Netherlands) .....	560.0	(5.0)	62.0 (1.0)	61.0 (1.4)	67.0 (1.4)	63.0 (0.9)	52.0 (0.9)	65.0 (1.6)			
New Zealand .....	525.0	(4.4)	58.0 (0.8)	56.0 (0.9)	60.0 (1.0)	58.0 (0.7)	53.0 (1.1)	59.0 (1.2)			
Norway .....	527.0	(1.9)	58.0 (0.4)	61.0 (0.6)	61.0 (0.5)	57.0 (0.4)	49.0 (0.6)	55.0 (0.8)			
Portugal .....	480.0	(2.3)	50.0 (0.6)	50.0 (0.7)	53.0 (0.6)	48.0 (0.5)	50.0 (0.9)	45.0 (0.8)			
(Romania) .....	486.0	(4.7)	50.0 (0.8)	49.0 (1.0)	55.0 (1.0)	49.0 (0.8)	46.0 (1.0)	42.0 (1.0)			
Russian Federation ..	538.0	(4.0)	58.0 (0.8)	58.0 (0.8)	62.0 (0.7)	57.0 (0.9)	57.0 (1.3)	50.0 (0.8)			
(Scotland) .....	517.0	(5.1)	55.0 (1.0)	52.0 (1.0)	57.0 (1.1)	57.0 (0.8)	51.0 (1.3)	57.0 (1.4)			
Singapore .....	607.0	(5.5)	70.0 (1.0)	65.0 (1.1)	72.0 (1.0)	69.0 (0.8)	69.0 (1.2)	74.0 (1.1)			
Slovak Republic .....	544.0	(3.2)	59.0 (0.6)	60.0 (0.7)	60.0 (0.6)	61.0 (0.6)	57.0 (0.8)	53.0 (0.9)			
(Slovenia) .....	560.0	(2.5)	62.0 (0.5)	64.0 (0.7)	65.0 (0.6)	61.0 (0.6)	56.0 (0.9)	59.0 (0.9)			
(South Africa) .....	326.0	(6.6)	27.0 (1.3)	26.0 (1.1)	27.0 (1.3)	27.0 (1.4)	26.0 (1.4)	26.0 (1.3)			
South Korea .....	565.0	(1.9)	66.0 (0.3)	63.0 (0.5)	70.0 (0.4)	65.0 (0.5)	63.0 (0.6)	64.0 (0.8)			
Spain .....	517.0	(1.7)	56.0 (0.4)	57.0 (0.5)	58.0 (0.5)	55.0 (0.4)	51.0 (0.7)	53.0 (0.6)			
Sweden .....	535.0	(3.0)	59.0 (0.6)	62.0 (0.7)	63.0 (0.7)	57.0 (0.5)	56.0 (0.7)	52.0 (0.8)			
Switzerland .....	522.0	(2.5)	56.0 (0.5)	58.0 (0.6)	59.0 (0.6)	58.0 (0.5)	50.0 (0.7)	51.0 (0.8)			
(Thailand) .....	525.0	(3.7)	57.0 (0.9)	56.0 (1.0)	66.0 (0.9)	54.0 (0.7)	43.0 (1.2)	62.0 (1.1)			
<b>United States</b> .....	534.0	(4.7)	58.0 (1.0)	58.0 (1.0)	63.0 (1.1)	56.0 (0.8)	53.0 (1.2)	61.0 (1.0)			

NR = not reported; TIMSS = Third International Mathematics and Science Study

NOTE: Standard errors are shown in parentheses. Countries not meeting sampling or other guidelines are shown in parentheses.

SOURCE: Beaton, A., M. Martin, I. Mullis, E. Gonzalez, T. Smith, and D. Kelly. 1996. *Science Achievement in the Middle School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center.

See figure 5-9 in Volume 1.

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Appendix table 5-16.

**Overall mean and average percentage correct on grade 8 TIMSS mathematics assessment, by country and content area: 1994–95**

Country	Mean	Percentage correct														
		All mathematics content areas		Fractions and number sense		Geometry		Algebra		Data representation, analysis, and probability		Measurement		Proportionality		
<b>All countries</b> ....	513.0	NR	55.0	(0.1)	58.0	(0.1)	56.0	(0.1)	52.0	(0.2)	62.0	(0.1)	51.0	(0.1)	45.0	(0.2)
(Australia) .....	530.0	(4.0)	58.0	(0.9)	61.0	(0.9)	57.0	(1.0)	55.0	(1.0)	67.0	(0.8)	54.0	(1.0)	47.0	(0.9)
(Austria) .....	539.0	(3.0)	62.0	(0.8)	66.0	(0.8)	57.0	(1.0)	59.0	(0.8)	68.0	(0.8)	62.0	(1.0)	49.0	(0.9)
(Belgium (Flemish)) .....	565.0	(5.7)	66.0	(1.4)	71.0	(1.2)	64.0	(1.5)	63.0	(1.7)	73.0	(1.3)	60.0	(1.3)	53.0	(1.8)
(Belgium (French)) .....	526.0	(3.4)	59.0	(0.9)	62.0	(1.0)	58.0	(1.0)	53.0	(1.1)	68.0	(1.0)	56.0	(1.0)	48.0	(0.9)
(Bulgaria) .....	540.0	(6.3)	60.0	(1.2)	60.0	(1.4)	65.0	(1.3)	62.0	(1.5)	62.0	(1.1)	54.0	(1.6)	47.0	(1.5)
Canada .....	527.0	(2.4)	59.0	(0.5)	64.0	(0.6)	58.0	(0.6)	54.0	(0.7)	69.0	(0.5)	51.0	(0.7)	48.0	(0.7)
(Colombia) .....	385.0	(3.4)	29.0	(0.8)	31.0	(0.9)	29.0	(0.9)	28.0	(0.9)	37.0	(1.0)	25.0	(1.5)	23.0	(0.9)
Cyprus .....	474.0	(1.9)	48.0	(0.5)	50.0	(0.6)	47.0	(0.6)	48.0	(0.7)	53.0	(0.6)	44.0	(0.9)	40.0	(0.7)
Czech Republic .....	564.0	(4.9)	66.0	(1.1)	69.0	(1.1)	66.0	(1.1)	65.0	(1.3)	68.0	(0.9)	62.0	(1.2)	52.0	(1.3)
(Denmark) .....	502.0	(2.8)	52.0	(0.7)	53.0	(0.9)	54.0	(0.9)	45.0	(0.7)	67.0	(0.9)	49.0	(1.0)	41.0	(0.8)
(England and Wales) .....	506.0	(2.6)	53.0	(0.7)	54.0	(0.8)	54.0	(1.0)	49.0	(0.9)	66.0	(0.7)	50.0	(0.9)	41.0	(1.1)
France .....	538.0	(2.9)	61.0	(0.8)	64.0	(0.8)	66.0	(0.8)	54.0	(1.0)	71.0	(0.8)	57.0	(0.9)	49.0	(0.9)
(Germany) .....	509.0	(4.5)	54.0	(1.1)	58.0	(1.1)	51.0	(1.4)	48.0	(1.3)	64.0	(1.2)	51.0	(1.1)	42.0	(1.3)
(Greece) .....	484.0	(3.1)	49.0	(0.7)	53.0	(0.8)	51.0	(0.7)	46.0	(0.8)	56.0	(0.8)	43.0	(0.9)	39.0	(1.1)
Hong Kong .....	588.0	(6.5)	70.0	(1.4)	72.0	(1.4)	73.0	(1.5)	70.0	(1.5)	72.0	(1.3)	65.0	(1.7)	62.0	(1.4)
Hungary .....	537.0	(3.2)	62.0	(0.7)	65.0	(0.8)	60.0	(0.8)	63.0	(0.9)	66.0	(0.7)	56.0	(0.8)	47.0	(0.9)
Iceland .....	487.0	(4.5)	50.0	(1.1)	54.0	(1.2)	51.0	(1.4)	40.0	(1.3)	63.0	(1.1)	45.0	(1.4)	38.0	(1.4)
Iran .....	428.0	(2.2)	38.0	(0.6)	39.0	(0.6)	43.0	(0.8)	37.0	(0.8)	41.0	(0.6)	29.0	(1.2)	36.0	(0.8)
Ireland .....	527.0	(5.1)	59.0	(1.2)	65.0	(1.2)	51.0	(1.3)	53.0	(1.3)	69.0	(1.1)	53.0	(1.3)	51.0	(1.2)
(Israel) .....	522.0	(6.2)	57.0	(1.3)	60.0	(1.4)	57.0	(1.4)	61.0	(1.6)	63.0	(1.3)	48.0	(1.6)	43.0	(1.6)
Japan .....	605.0	(1.9)	73.0	(0.4)	75.0	(0.4)	80.0	(0.4)	72.0	(0.6)	78.0	(0.4)	67.0	(0.5)	61.0	(0.5)
(Kuwait) .....	392.0	(2.5)	30.0	(0.7)	27.0	(0.8)	38.0	(1.0)	30.0	(1.0)	38.0	(1.0)	23.0	(1.0)	21.0	(0.7)
(Latvia (LSS)) .....	493.0	(3.1)	51.0	(0.8)	53.0	(0.9)	57.0	(0.8)	51.0	(0.9)	56.0	(0.8)	47.0	(0.9)	39.0	(0.9)
(Lithuania) .....	477.0	(3.5)	48.0	(0.9)	51.0	(1.0)	53.0	(1.1)	47.0	(1.2)	52.0	(1.0)	43.0	(0.9)	35.0	(0.9)
(Netherlands) ....	541.0	(6.7)	60.0	(1.6)	62.0	(1.6)	59.0	(1.8)	53.0	(1.6)	72.0	(1.7)	57.0	(1.6)	51.0	(1.9)
New Zealand ....	508.0	(4.5)	54.0	(1.0)	57.0	(1.1)	54.0	(1.1)	49.0	(1.1)	66.0	(1.0)	48.0	(1.2)	42.0	(1.0)
Norway .....	503.0	(2.2)	54.0	(0.5)	58.0	(0.6)	51.0	(0.6)	45.0	(0.7)	66.0	(0.6)	51.0	(0.6)	40.0	(0.6)
Portugal .....	454.0	(2.5)	43.0	(0.7)	44.0	(0.7)	44.0	(0.8)	40.0	(0.8)	54.0	(0.7)	39.0	(0.7)	32.0	(0.8)
(Romania) .....	482.0	(4.0)	49.0	(1.0)	48.0	(1.0)	52.0	(0.9)	52.0	(1.3)	49.0	(1.0)	48.0	(1.1)	42.0	(1.2)
Russian Federation .....	535.0	(5.3)	60.0	(1.3)	62.0	(1.2)	63.0	(1.4)	63.0	(1.5)	60.0	(1.2)	56.0	(1.5)	48.0	(1.5)
(Scotland) .....	498.0	(5.5)	52.0	(1.3)	53.0	(1.3)	52.0	(1.4)	46.0	(1.5)	65.0	(1.3)	48.0	(1.6)	40.0	(1.4)
Singapore .....	643.0	(4.9)	79.0	(0.9)	84.0	(0.8)	76.0	(1.0)	76.0	(1.1)	79.0	(0.8)	77.0	(1.0)	75.0	(1.0)
Slovak Republic .....	547.0	(3.3)	62.0	(0.8)	66.0	(0.8)	63.0	(0.8)	62.0	(0.9)	62.0	(0.7)	60.0	(0.9)	49.0	(1.0)
(Slovenia) .....	541.0	(3.1)	61.0	(0.7)	63.0	(0.7)	60.0	(0.9)	61.0	(0.8)	66.0	(0.7)	59.0	(0.9)	49.0	(0.8)
(South Africa) ...	354.0	(4.4)	24.0	(1.1)	26.0	(1.4)	24.0	(1.0)	23.0	(1.1)	26.0	(1.2)	18.0	(1.1)	21.0	(0.9)
South Korea ....	607.0	(2.4)	72.0	(0.5)	74.0	(0.5)	75.0	(0.6)	69.0	(0.6)	78.0	(0.6)	66.0	(0.7)	62.0	(0.6)
Spain .....	487.0	(2.0)	51.0	(0.5)	52.0	(0.5)	49.0	(0.6)	54.0	(0.8)	60.0	(0.7)	44.0	(0.7)	40.0	(0.8)
Sweden .....	519.0	(3.0)	56.0	(0.7)	62.0	(0.8)	48.0	(0.7)	44.0	(0.9)	70.0	(0.7)	56.0	(0.9)	44.0	(0.9)
Switzerland .....	545.0	(2.8)	62.0	(0.6)	67.0	(0.7)	60.0	(0.8)	53.0	(0.7)	72.0	(0.7)	61.0	(0.8)	52.0	(0.7)
(Thailand) .....	522.0	(5.7)	57.0	(1.4)	60.0	(1.5)	62.0	(1.3)	53.0	(1.7)	63.0	(1.1)	50.0	(1.4)	51.0	(1.5)
<b>United States</b> ..	500.0	(4.6)	53.0	(1.1)	59.0	(1.1)	48.0	(1.2)	51.0	(1.2)	65.0	(1.1)	40.0	(1.1)	42.0	(1.1)

NR = not reported; TIMSS = Third International Mathematics and Science Study

NOTE: Standard errors are shown in parentheses. Countries not meeting sampling or other guidelines are shown in parentheses.

SOURCE: Beaton, A., I. Mullis, M. Martin, E. Gonzalez, D. Kelly, and T. Smith. 1996. *Mathematics Achievement in the Primary School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center.

See figure 5-9 in Volume 1.

Appendix table 5-17.

**Mean and standard errors on final year of secondary school TIMSS mathematics and science general knowledge assessment, by country: 1994–95**

Country	Mathematics	Science
(Australia) .....	522 (9.3)	527 (9.8)
(Austria) .....	518 (5.3)	520 (5.6)
(Canada) .....	519 (2.8)	532 (2.6)
(Cyprus) .....	446 (2.5)	448 (3.0)
Czech Republic .....	466 (12.3)	487 (8.8)
(Denmark) .....	547 (3.3)	509 (3.6)
(France) .....	523 (5.1)	487 (5.1)
(Germany) .....	495 (5.9)	497 (5.1)
Hungary .....	483 (3.2)	471 (3.0)
(Iceland) .....	534 (2.0)	549 (1.5)
(Italy) .....	476 (5.5)	475 (5.3)
(Lithuania) .....	469 (6.1)	461 (5.7)
(Netherlands) .....	560 (4.7)	558 (5.3)
New Zealand .....	522 (4.5)	529 (5.2)
(Norway) .....	528 (4.1)	544 (4.1)
(Russian Federation) ...	471 (6.2)	481 (5.7)
(Slovenia) .....	512 (8.3)	517 (8.2)
(South Africa) .....	356 (8.3)	349 (10.5)
Sweden .....	552 (4.3)	559 (4.4)
Switzerland .....	540 (5.8)	523 (5.3)
(United States) .....	461 (3.2)	480 (3.3)

NOTE: Standard errors are shown in parentheses. Countries not meeting sampling or other guidelines are shown in parentheses.

SOURCE: Mullis, I., M. Martin, A. Beaton, E. Gonzalez, D. Kelly, and T. Smith. 1998. *Mathematics and Science Achievement in the Final Year of Secondary School: IEA's Third International Mathematics Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center.

See figure 5-10 in Volume 1.

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Appendix table 5-18.

**Mean and standard errors on final year of secondary school TIMSS advanced mathematics and physics assessment, by country: 1994–95**

Country	Advanced mathematics	Physics
Australia .....	525 (11.6) <sup>a</sup>	518 (6.2) <sup>a</sup>
Austria .....	436 (7.2) <sup>a</sup>	435 (6.4) <sup>a</sup>
Canada .....	509 (4.3)	485 (3.3) <sup>a</sup>
Cyprus .....	518 (4.3) <sup>a</sup>	494 (5.8) <sup>a</sup>
Czech Republic .....	469 (11.2)	451 (6.2)
Denmark .....	522 (3.4) <sup>a</sup>	534 (4.2) <sup>a</sup>
France .....	557 (3.9)	466 (3.8)
Germany .....	465 (5.6) <sup>a</sup>	522 (11.9) <sup>a</sup>
Greece .....	513 (6.0)	486 (5.6)
Italy .....	474 (9.6) <sup>a</sup>	NP
Latvia (LSS) .....	NP	488 (21.5) <sup>a</sup>
Lithuania .....	516 (2.6) <sup>a</sup>	NP
Norway .....	NP	581 (6.5)
Russian Federation .....	542 (9.2) <sup>a</sup>	545 (11.6) <sup>a</sup>
Slovenia .....	475 (9.2) <sup>a</sup>	523 (15.5) <sup>a</sup>
Sweden .....	512 (4.4)	573 (3.9)
Switzerland .....	533 (5.0)	488 (3.5)
United States .....	442 (5.9) <sup>a</sup>	423 (3.3) <sup>a</sup>

NP = Country was not assessed in this subject.

NOTE: Standard errors are shown in parentheses.

<sup>a</sup>Country did not satisfy one or more guidelines for sample participation rates or student sampling procedures.

SOURCE: Mullis, I., M. Martin, A. Beaton, E. Gonzalez, D. Kelly, and T. Smith. 1998. *Mathematics and Science Achievement in the Final Year of Secondary School: IEA's Third International Mathematics Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center.

See figures 5-11 and 5-12 in Volume 1.

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Appendix table 5-19.

**Percentage of students scoring in the top 10 percent on the TIMSS science and mathematics assessments, by country and grade: 1994-95**

Country	Science				Mathematics			
	Grade 4		Grade 8		Grade 4		Grade 8	
Australia .....	14.0	(0.7)	16.0	(0.9)	12.0	(0.7)	11.0	(0.9)
Austria .....	10.0	(0.9)	16.0	(0.9)	11.0	(1.1)	11.0	(0.7)
Belgium (Flemish) .....		NP	10.0	(0.8)		NP	17.0	(1.2)
Belgium (French) .....		NP	1.0	(0.2)		NP	6.0	(0.6)
Bulgaria .....		NP	21.0	(1.4)		NP	16.0	(1.9)
Canada .....	9.0	(0.7)	9.0	(0.6)	7.0	(0.8)	7.0	(0.7)
Colombia .....		NP	0.0	(0.1)		NP	0.0	0.0
Cyprus .....	1.0	(0.1)	1.0	(0.2)	4.0	(0.5)	2.0	(0.3)
Czech Republic .....	11.0	(1.0)	19.0	(1.6)	15.0	(1.3)	18.0	(1.9)
Denmark .....		NP	2.0	(0.3)		NP	4.0	(0.5)
England and Wales .....	13.0	(1.0)	17.0	(0.9)	7.0	(0.7)	7.0	(0.6)
France .....		NP	1.0	(0.2)		NP	7.0	(0.8)
Germany .....		NP	11.0	(1.0)		NP	6.0	(0.7)
Greece .....	1.0	(0.2)	4.0	(0.4)	3.0	(0.5)	3.0	(0.4)
Hong Kong .....	4.0	(0.7)	7.0	(0.8)	18.0	(1.5)	27.0	(2.1)
Hungary .....	5.0	(0.6)	14.0	(0.8)	11.0	(1.1)	11.0	(0.8)
Iceland .....	3.0	(0.4)	2.0	(0.5)	1.0	(0.3)	1.0	(0.3)
Iran .....	0.0	(0.1)	1.0	(0.1)	0.0	(0.1)	0.0	0.0
Ireland .....	7.0	(0.6)	12.0	(0.9)	10.0	(0.7)	9.0	(1.0)
Israel .....	3.0	(0.5)	11.0	(1.2)	6.0	(0.7)	6.0	(0.9)
Japan .....	11.0	(0.6)	18.0	(0.6)	23.0	(0.9)	32.0	(0.8)
Kuwait .....	0.0	(0.1)	0.0	0.0	0.0	(0.1)	0.0	0.0
Latvia (LSS) .....	4.0	(1.2)	2.0	(0.3)	6.0	(1.3)	3.0	(0.5)
Lithuania .....		NP	1.0	(0.3)		NP	1.0	(0.3)
Netherlands .....	5.0	(0.6)	12.0	(1.1)	13.0	(1.1)	10.0	(1.6)
New Zealand .....	9.0	(0.9)	11.0	(0.9)	3.0	(0.7)	6.0	(0.8)
Norway .....	6.0	(0.6)	7.0	(0.5)	2.0	(0.3)	4.0	(0.4)
Portugal .....	1.0	(0.2)	1.0	(0.1)	1.0	(0.2)	0.0	(0.1)
Romania .....		NP	5.0	(0.6)		NP	3.0	(0.4)
Russian Federation .....		NP	11.0	(0.8)		NP	10.0	(0.7)
Scotland .....	9.0	(0.8)	9.0	(1.1)	6.0	(0.8)	5.0	(0.9)
Singapore .....	11.0	(1.5)	31.0	(2.3)	39.0	(2.3)	45.0	(2.5)
Slovak Republic .....		NP	12.0	(0.9)		NP	12.0	(1.0)
Slovenia .....	6.0	(0.7)	14.0	(0.9)	11.0	(0.9)	11.0	(0.7)
South Africa .....		NP	1.0	(0.2)		NP	0.0	0.0
South Korea .....	17.0	(0.9)	18.0	(0.8)	26.0	(1.2)	34.0	(1.1)
Spain .....		NP	4.0	(0.3)		NP	2.0	(0.2)
Sweden .....		NP	9.0	(0.6)		NP	5.0	(0.5)
Switzerland .....		NP	7.0	(0.6)		NP	11.0	(0.7)
Thailand .....	0.0	(0.1)	4.0	(0.5)	1.0	(0.2)	7.0	(1.2)
United States .....	16.0	(0.9)	13.0	(0.8)	9.0	(0.8)	5.0	(0.6)

NP = did not participate in grade 4 assessment

NOTE: Standard errors are shown in parentheses.

SOURCES: Beaton, A., M. Martin, I. Mullis, E. Gonzalez, T. Smith, and D. Kelly. 1996. *Mathematics Achievement in the Middle School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center; Mullis, I., M. Martin, A. Beaton, E. Gonzalez, D. Kelly, and T. Smith. 1997. *Mathematics Achievement in the Primary School Years: IEA's Third International Mathematics and Science Study (TIMSS)*. Chestnut Hill, MA: Boston College, TIMSS International Study Center.

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## Appendix table 5-20.

**TIMSS achievement means by subject and grade for selected countries: 1994–95**

Grade and country	Mathematics	Science
<b>Grade 4</b>		
First in the World .....	591 (9.1)	611 (9.0)
United States. ....	545 (3.0)	565 (3.1)
International .....	529 (0.7)	524 (0.7)
Highest scoring country .....	Singapore 625 (5.3)	South Korea 597 (1.9)
<b>Grade 8</b>		
First in the World .....	587 (11.8)	584 (8.7)
United States. ....	500 (4.6)	534 (4.7)
International .....	513 (0.8)	516 (0.7)
Highest scoring country .....	Singapore 643 (4.9)	Singapore 607 (5.5)
<b>Final Year (General Knowledge)</b>		
First in the World .....	545 (3.5)	547 (3.9)
United States. ....	461 (3.2)	480 (3.3)
International .....	500 (1.3)	500 (1.3)
Highest scoring country .....	Netherlands 560 (4.7)	Sweden 559 (4.4)
<b>Final Year (Advanced)</b>		
First in the World .....	490 (4.4)	445 (3.3)
United States. ....	442 (5.9)	423 (3.3)
International .....	501 (1.8)	501 (1.8)
Highest scoring country .....	France 557 (3.9)	Norway 581 (6.5)

NOTE: Data from Third International Mathematics and Science Study (1994-95). The First in the World Consortium includes 20 Illinois elementary and secondary districts, composed of some 37,780 students. See <<<http://www.ncrel.org/fitw/homepage.htm>>> for a list of participating districts.

SOURCE: North Central Regional Educational Laboratory. Available from <<<http://www.ncrel.org/>>>. Accessed March 1999.

Appendix table 5-21.

**Percentage of high school graduates earning credits in science courses, by gender: 1982, 1987, 1990, and 1994**

Year of graduation and gender	Any science	Survey science	Biology	AP/honors biology	Chemistry	AP chemistry	Physics	AP/honors physics
<b>1982 graduates</b>								
All .....	96.5 (0.3)	62.1 (1.2)	76.6 (0.8)	9.7 (0.5)	31.1 (0.8)	2.9 (0.4)	14.4 (0.5)	1.1 (0.1)
Male .....	96.3 (0.3)	63.6 (1.4)	74.5 (0.9)	9.0 (0.5)	32.2 (1.2)	3.5 (0.5)	19.1 (1.0)	1.5 (0.2)
Female .....	96.7 (0.3)	60.8 (1.3)	78.6 (1.1)	10.3 (0.8)	30.2 (0.7)	2.4 (0.5)	10.2 (0.4)	0.7 (0.1)
<b>1987 graduates</b>								
All .....	99.1 (0.2)	61.3 (3.1)	87.9 (1.0)	9.5 (0.8)	43.8 (1.1)	3.3 (0.4)	19.3 (0.9)	1.7 (0.3)
Male .....	98.8 (0.2)	61.8 (3.0)	86.3 (1.2)	9.4 (0.8)	44.3 (1.3)	3.9 (0.5)	24.1 (1.0)	2.5 (0.4)
Female .....	99.3 (0.1)	60.7 (3.3)	89.5 (0.8)	9.6 (0.9)	43.2 (1.2)	2.7 (0.3)	14.7 (0.9)	0.9 (0.2)
<b>1990 graduates</b>								
All .....	99.4 (0.1)	68.1 (1.8)	91.1 (1.0)	10.1 (1.0)	48.9 (1.3)	3.5 (0.5)	21.6 (0.8)	2.0 (0.4)
Male .....	99.1 (0.3)	69.6 (1.9)	89.6 (1.1)	9.3 (1.0)	47.7 (1.4)	4.1 (0.5)	25.4 (0.9)	2.5 (0.5)
Female .....	99.7 (0.1)	66.7 (1.9)	92.4 (0.9)	10.8 (1.2)	50.0 (1.3)	2.9 (0.5)	18.0 (0.9)	1.6 (0.3)
<b>1994 graduates</b>								
All .....	99.6 (0.1)	71.1 (1.9)	93.4 (1.0)	11.9 (0.9)	55.8 (1.0)	3.9 (0.5)	24.7 (0.9)	2.7 (0.3)
Male .....	99.5 (0.1)	72.5 (2.0)	92.1 (1.1)	10.9 (0.9)	52.9 (1.1)	4.1 (0.6)	27.2 (1.0)	3.5 (0.4)
Female .....	99.8 (0.1)	69.8 (2.0)	94.7 (0.9)	12.8 (1.1)	58.6 (1.2)	3.7 (0.5)	22.3 (0.9)	2.0 (0.3)

AP = advanced placement

NOTE: Standard errors are shown in parentheses.

SOURCE: National Center for Education Statistics (NCES). 1998. *The 1994 High School Transcript Study: Comparative Data on Credits Earned and Demographics for 1994, 1990, 1987, and 1982 High School Graduates*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See text table 5-5 in Volume 1.

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Appendix table 5-22.  
**Percentage of high school graduates earning credits in mathematics courses, by gender: 1982, 1987, 1990, and 1994**

Year of graduation and gender	Any mathematics	Basic math	General math	Applied math	Algebra 2	Geometry	Calculus	AP calculus	Advanced math—other
<b>1982 graduates</b>									
All .....	98.6 (0.1)	6.2 (0.5)	29.5 (1.1)	8.8 (0.4)	35.6 (0.8)	45.8 (0.8)	4.7 (0.4)	1.5 (0.3)	13.2 (0.8)
Male .....	98.9 (0.2)	7.4 (0.5)	32.3 (1.2)	10.0 (0.6)	35.9 (1.1)	45.4 (0.8)	5.2 (0.5)	1.6 (0.3)	14.8 (1.1)
Female .....	98.4 (0.2)	5.1 (0.7)	26.9 (1.2)	7.7 (0.6)	35.3 (0.9)	46.2 (1.2)	4.2 (0.4)	1.4 (0.3)	11.7 (0.7)
<b>1987 graduates</b>									
All .....	99.8 (0.1)	8.5 (0.7)	21.1 (1.3)	14.4 (1.0)	46.1 (1.6)	59.8 (1.0)	6.0 (0.4)	3.3 (0.4)	20.5 (1.1)
Male .....	99.8 (0.1)	9.2 (0.8)	23.1 (1.5)	15.3 (1.2)	44.8 (1.8)	58.9 (1.2)	7.4 (0.5)	3.8 (0.5)	22.2 (1.3)
Female .....	99.7 (0.1)	7.8 (0.8)	19.1 (1.1)	13.6 (1.0)	47.5 (1.7)	60.5 (1.0)	4.6 (0.4)	2.7 (0.4)	19.0 (1.2)
<b>1990 graduates</b>									
All .....	99.9 0.0	8.0 (0.7)	19.6 (1.5)	16.1 (1.2)	49.6 (1.3)	63.2 (1.4)	6.5 (0.5)	4.1 (0.4)	20.3 (1.2)
Male .....	99.9 (0.1)	8.9 (0.8)	21.6 (1.7)	17.0 (1.3)	47.7 (1.4)	62.1 (1.6)	7.5 (0.6)	5.0 (0.6)	21.4 (1.4)
Female .....	99.9 (0.1)	7.1 (0.7)	17.8 (1.4)	15.2 (1.2)	51.5 (1.5)	64.3 (1.4)	5.6 (0.4)	3.4 (0.4)	19.3 (1.1)
<b>1994 graduates</b>									
All .....	99.9 0.0	4.8 (0.5)	16.2 (1.0)	13.7 (0.9)	57.8 (1.4)	70.1 (1.4)	9.3 (0.6)	7.0 (0.5)	24.9 (0.9)
Male .....	99.9 0.0	5.8 (0.5)	18.2 (1.1)	14.8 (1.1)	54.4 (1.4)	68.0 (1.3)	9.5 (0.6)	7.2 (0.6)	24.2 (1.0)
Female .....	99.9 (0.1)	4.0 (0.4)	14.2 (1.0)	12.7 (0.9)	61.0 (1.5)	72.3 (1.3)	9.2 (0.6)	6.8 (0.6)	25.6 (1.0)

AP = advanced placement

NOTE: Standard errors are shown in parentheses.

SOURCE: National Center for Education Statistics (NCES), 1998. The 1994 High School Transcript Study: Comparative Data on Credits Earned and Demographics for 1994, 1990, 1987, and 1982 High School Graduates. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figure 5-13 and text table 5-6 in Volume 1.

Appendix table 5-23.

**Percentage of high school graduates earning credits in science courses, by race/ethnicity: 1982, 1987, 1990, and 1994**

Year of graduation and gender	Any science	Survey science	Biology	AP/honors biology	Chemistry	AP chemistry	Physics	AP/honors physics
<b>1982 graduates</b>								
White .....	96.9 (0.3)	61.6 (1.4)	78.6 (1.0)	10.9 (0.7)	34.4 (0.9)	3.3 (0.5)	16.5 (0.6)	1.2 (0.2)
Asian/Pacific Islander .....	95.9 (1.3)	40.9 (5.1)	83.7 (2.2)	17.5 (2.9)	52.8 (4.4)	5.8 (1.3)	34.8 (3.4)	3.4 (1.0)
Black .....	97.1 (0.5)	67.8 (1.8)	72.9 (1.9)	6.0 (1.3)	22.3 (1.5)	1.6 (0.6)	7.6 (0.8)	0.9 (0.4)
Hispanic .....	93.5 (1.1)	63.3 (1.6)	68.6 (2.1)	4.8 (0.7)	15.6 (1.0)	1.4 (0.4)	5.6 (0.6)	0.4 (0.1)
American Indian/ Alaskan Native ...	91.6 (4.9)	58.1 (7.7)	67.4 (6.9)	3.2 (1.8)	26.2 (7.0)	0.9 (0.9)	8.2 (3.1)	0.0 (0.0)
<b>1987 graduates</b>								
White .....	99.2 (0.2)	60.7 (3.6)	88.8 (1.1)	9.6 (0.9)	46.7 (1.2)	3.4 (0.4)	20.6 (1.0)	1.7 (0.3)
Asian/Pacific Islander .....	99.6 (0.3)	44.8 (5.2)	92.1 (1.3)	23.6 (4.4)	70.2 (3.7)	15.4 (2.5)	46.9 (4.2)	6.2 (1.4)
Black .....	99.1 (0.3)	71.8 (3.8)	84.6 (1.8)	5.2 (0.7)	28.4 (1.8)	1.1 (0.3)	9.7 (1.1)	0.4 (0.1)
Hispanic .....	99.1 (0.3)	66.9 (3.2)	85.5 (1.5)	7.6 (1.1)	29.1 (1.5)	2.2 (0.6)	9.9 (1.1)	0.8 (0.3)
American Indian/ Alaskan Native ...	99.1 (0.7)	67.3 (3.3)	90.9 (1.9)	13.0 (3.6)	26.4 (2.0)	0.6 (0.3)	8.4 (2.4)	1.4 (0.5)
<b>1990 graduates</b>								
White .....	99.4 (0.2)	67.6 (2.0)	91.3 (1.1)	10.5 (1.0)	51.4 (1.4)	3.7 (0.6)	23.1 (0.9)	2.1 (0.4)
Asian/Pacific Islander .....	99.6 (0.2)	56.7 (7.1)	90.4 (2.8)	13.4 (4.0)	63.6 (4.0)	7.7 (1.9)	38.4 (3.5)	5.9 (2.6)
Black .....	99.5 (0.2)	75.3 (3.1)	91.1 (2.2)	7.7 (1.9)	40.0 (2.2)	2.5 (0.9)	14.5 (1.9)	0.7 (0.3)
Hispanic .....	99.1 (0.3)	72.0 (3.5)	90.1 (1.4)	6.7 (1.3)	38.1 (2.9)	1.1 (0.4)	13.2 (1.3)	1.0 (0.4)
American Indian/ Alaskan Native ...	98.7 (1.2)	69.4 (5.8)	89.4 (4.7)	3.8 (2.0)	34.9 (4.6)	4.4 (2.6)	14.5 (3.8)	0.5 (0.5)
<b>1994 graduates</b>								
White .....	99.8 (0.1)	72.3 (2.3)	94.3 (1.1)	12.5 (1.1)	58.4 (1.1)	4.3 (0.6)	26.3 (1.1)	2.8 (0.4)
Asian/Pacific Islander .....	99.4 (0.4)	62.0 (4.6)	91.5 (1.5)	18.2 (3.1)	69.2 (4.9)	7.7 (1.5)	44.4 (3.6)	6.7 (1.5)
Black .....	99.8 (0.1)	71.7 (3.5)	91.8 (1.5)	7.7 (1.1)	43.7 (2.6)	2.1 (0.7)	14.9 (1.2)	1.8 (0.3)
Hispanic .....	99.3 (0.2)	69.7 (4.0)	93.7 (0.7)	11.0 (1.2)	45.9 (3.5)	2.5 (0.6)	16.1 (1.6)	1.9 (0.5)
American Indian/ Alaskan Native ...	99.7 (0.3)	79.0 (5.2)	91.8 (2.1)	6.2 (3.2)	41.3 (5.6)	0.6 (0.6)	10.3 (3.0)	0.3 (0.3)

AP = advanced placement

NOTE: Standard errors are shown in parentheses.

SOURCE: National Center for Education Statistics (NCES). 1998. *The 1994 High School Transcript Study: Comparative Data on Credits Earned and Demographics for 1994, 1990, 1987, and 1982 High School Graduates*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figure 5-14 and text table 5-5 in Volume 1.

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Appendix table 5-24.  
**Percentage of high school graduates earning credits in mathematics courses, by race/ethnicity: 1982, 1987, 1990, and 1994**

Year of graduation and gender	Any mathematics	Basic math	General math	Applied math	Algebra 2	Geometry	Calculus	AP calculus	Advanced math—other
<b>1982 graduates</b>									
White .....	98.8 (0.2)	4.5 (0.4)	25.0 (1.1)	7.8 (0.6)	39.5 (0.9)	51.3 (1.0)	5.5 (0.4)	1.8 (0.3)	14.9 (0.9)
Asian/Pacific Islander .....	100.0 (0.0)	4.9 (1.6)	17.0 (3.5)	9.6 (2.1)	55.8 (4.2)	64.9 (4.7)	12.8 (2.7)	5.5 (1.7)	24.9 (3.1)
Black .....	99.3 (0.3)	13.6 (2.1)	46.6 (3.1)	13.3 (1.5)	24.2 (2.0)	29.3 (1.8)	1.3 (0.4)	0.3 (0.1)	6.2 (0.8)
Hispanic .....	97.2 (0.5)	9.4 (1.2)	43.2 (2.1)	11.2 (1.2)	20.1 (1.4)	25.7 (1.4)	1.7 (0.3)	0.4 (0.1)	8.0 (0.9)
American Indian/Alaskan Native .....	99.6 (0.5)	7.4 (4.2)	41.4 (5.2)	7.3 (3.3)	19.1 (4.5)	33.5 (7.2)	4.0 (2.2)	0.1 (0.1)	7.4 (2.9)
<b>1987 graduates</b>									
White .....	99.8 (0.1)	6.5 (0.6)	18.1 (1.3)	14.3 (1.3)	50.7 (1.6)	63.1 (1.2)	5.7 (0.4)	2.7 (0.3)	21.6 (1.2)
Asian/Pacific Islander .....	100.0 (0.0)	4.9 (1.3)	14.2 (3.1)	9.7 (1.3)	66.1 (4.7)	81.4 (2.5)	29.6 (4.1)	23.7 (4.7)	48.5 (5.0)
Black .....	99.8 (0.1)	17.1 (2.7)	37.9 (2.7)	18.4 (1.8)	30.0 (1.7)	42.3 (2.0)	2.2 (0.3)	1.4 (0.3)	9.8 (0.9)
Hispanic .....	99.9 (0.1)	21.0 (1.9)	29.3 (3.5)	15.6 (1.8)	27.6 (2.0)	39.7 (1.7)	3.6 (0.7)	2.6 (0.6)	11.1 (1.2)
American Indian/Alaskan Native .....	99.3 (0.8)	7.2 (1.6)	37.2 (4.7)	29.9 (4.4)	23.8 (2.5)	43.5 (4.0)	0.4 (0.4)	0.4 (0.4)	10.2 (1.6)
<b>1990 graduates</b>									
White .....	99.9 (0.1)	5.8 (0.6)	17.5 (1.8)	15.0 (1.1)	53.1 (1.6)	65.5 (1.5)	6.9 (0.5)	4.2 (0.5)	22.2 (1.3)
Asian/Pacific Islander .....	99.9 (0.2)	8.4 (2.6)	14.7 (1.8)	13.0 (3.5)	60.9 (5.0)	70.7 (2.8)	18.5 (3.3)	15.6 (2.8)	36.3 (4.8)
Black .....	99.9 (0.1)	14.3 (1.9)	28.4 (2.3)	21.3 (2.7)	40.6 (2.8)	55.8 (2.6)	2.7 (0.5)	1.2 (0.3)	9.7 (1.4)
Hispanic .....	99.8 (0.1)	15.3 (2.7)	28.6 (3.0)	19.1 (3.7)	35.1 (2.6)	53.2 (2.8)	3.8 (0.7)	3.0 (0.6)	11.1 (1.1)
American Indian/Alaskan Native .....	100.0 (0.0)	11.1 (3.0)	28.9 (7.0)	20.7 (4.6)	47.1 (5.4)	54.8 (3.1)	4.1 (2.7)	2.9 (2.5)	16.3 (4.0)
<b>1994 graduates</b>									
White .....	99.9 (0.0)	3.7 (0.4)	14.5 (1.1)	13.2 (1.1)	61.6 (1.5)	72.4 (1.4)	9.6 (0.7)	7.3 (0.7)	26.5 (1.1)
Asian/Pacific Islander .....	100.0 (0.0)	4.0 (1.0)	17.5 (2.8)	11.5 (3.2)	66.2 (5.0)	75.7 (3.8)	23.6 (3.2)	21.1 (2.9)	40.6 (4.3)
Black .....	100.0 (0.0)	7.3 (1.3)	27.1 (2.9)	17.5 (2.0)	43.9 (2.4)	58.1 (2.9)	3.8 (0.6)	2.0 (0.4)	13.5 (1.1)
Hispanic .....	99.9 (0.1)	8.4 (1.1)	16.2 (2.1)	16.4 (2.1)	49.6 (2.1)	68.8 (1.8)	6.0 (0.6)	4.6 (0.5)	17.4 (1.5)
American Indian/Alaskan Native .....	100.0 (0.0)	5.4 (1.4)	19.1 (3.5)	13.8 (2.9)	42.2 (7.0)	60.0 (4.3)	3.8 (1.2)	2.2 (1.4)	11.9 (3.3)

AP = advanced placement

NOTE: Standard errors are shown in parentheses.

SOURCE: National Center for Education Statistics (NCES), 1998. The 1994 High School Transcript Study: Comparative Data on Credits Earned and Demographics for 1994, 1990, 1987, and 1982 High School Graduates. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

See figure 5-15 and text table 5-6 in Volume 1.

Appendix table 5-25.

**Percentage of public schools and instructional rooms having access to the Internet, by school characteristics: 1994, 1997, and 1998**

School characteristic	Schools			Instructional rooms		
	1994	1997	1998	1994	1997	1998
<b>All public schools</b> .....	35	78	89	3	27	51
Instructional level <sup>a</sup>						
Elementary .....	30	75	88	3	24	51
Secondary .....	49	89	94	4	32	52
<b>Metropolitan status</b>						
City .....	40	74	92	4	20	47
Urban fringe .....	38	78	85	4	29	50
Town .....	29	84	90	3	34	55
Rural .....	35	79	92	3	30	57
<b>Percent minority enrollment</b>						
Less than 6 percent .....	38	84	91	6	37	57
6 to 20 percent .....	38	87	93	4	35	59
21 to 49 percent .....	38	73	82	4	22	52
50 percent or more .....	27	63	82	3	13	37
<b>Percent of students eligible for free or reduced-price school lunch</b>						
Less than 11 percent .....	40	88	87	4	36	62
11 to 30 percent .....	39	83	94	4	32	53
31 to 70 percent .....	33	78	91	3	27	52
71 percent or more .....	19	63	80	2	14	39

<sup>a</sup>Data for combined schools are included in the totals and in analyses by other school characteristics but are not shown separately.

SOURCES: National Center for Education Statistics (NCES). 1995. *Advanced Telecommunications in U.S. Public Schools, K-12*. NCES 95-731; 1996. *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, 1995*. NCES 96-854; 1997. *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*. NCES 97-944; 1998. *Internet Access in Public Schools*. NCES 98-031. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement; and data from the Fast Response Survey System, "Survey on Internet Access in U.S. Public Schools, Fall 1998," FRSS 69, 1998.

See figure 5-18 in Volume 1.

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Appendix table 5-26.

**Teachers' computer use practice by subject and level for U.S. teachers in grades 4 to 12 (not including physical education): 1997–98**

Subject and level taught	Have students use computers in the selected class	Students use computers in other classes, not this class	Use computers only to prepare for class or other activities	Do not use computers but have in the past	Never used computers in teaching or other activities	Total
All teachers .....	60%	11%	23%	4%	3%	100%
Elementary self-contained .....	73	15	9	2	2	100
Elementary other .....	64	14	14	4	5	100
Secondary						
English .....	65	10	20	4	1	100
Science .....	60	6	30	3	1	100
Social studies .....	50	6	32	8	4	100
Foreign language .....	38	17	38	0	8	100
Math .....	37	12	38	7	6	100
Mixed and other academic .....	72	15	11	1	1	100
Computer .....	94	4	1	0	0	100
Business .....	82	11	0	4	3	100
Vocational .....	73	6	20	1	0	100
Fine arts .....	36	17	39	4	4	100
Non-academic other .....	40	11	43	2	5	100

SOURCE: Ravitz, J., H.J. Becker, and Y. Wong. 1999. "Computer and Software Use by Teachers." *Teaching, Learning, and Computing 1998*, Report No. 3. November.

See page 5-31 in Volume 1.

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